

METHODS AND DEVICES FOR PRODUCING BIOMOLECULES

ABSTRACT OF THE DISCLOSURE

A scalable process and device for producing a biomolecule, in particular pharmaceutical grade plasmid DNA. The process includes the steps of alkaline lysis and a neutralization. For separating the lysate and the precipitate, the mixture is allowed to gently flow downward through a clarification reactor that is partially filled, in its lower part, with retention material like glass beads, whereby the precipitate is retained on top of and within the retention. In a preferred embodiment of the lysis step, cell suspension and alkaline lysis solution flow through a lysis reactor that is filled with particulate material like glass beads. The process can be run continuously and fully automated.